Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of Part 2 of the Commission's Rules Relating to the Marketing and Authorization of Radio Frequency Devices.	)	ET Docket No. 94-45 RM-8125

TO: The Commission

COMMENTS OF INTERNATIONAL BUSINESS MACHINES CORPORATION

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Summary

IBM strongly endorses the Commission's goals in this proceeding to "stimulate economic growth" and "decreas[e] the time for a product to reach the marketplace," and it supports the Commission's proposals to meet these goals. IBM does suggest that the Commission permit computer manufacturers to recover their product development costs by permitting them to sell the prototype devices that the Commission already recognizes may be delivered to complementary software and hardware developers or for the limited purposes of beta testing.

IBM also believes, however, that a more fundamental change in the Commission's approval procedures is now warranted in the case of personal computers and associated peripherals -- changes that will bring U.S. procedures into conformity with those applicable overseas. Since implementation of the marketing rules over 20 years ago, the PC industry has developed into one in which technological capability and consumer demand have combined to shorten dramatically the product development and life cycles of PC products. Given these shortened time limits, and the established nature of the Commission's testing procedures, the month of delay in time-to-market occasioned by the class B certification process no longer appears warranted. By adopting for PC products the kind of verification procedure already applicable to class A devices and analogous to that established by the EC in 1989, the Commission could stimulate growth and competition in this vital sector of our national economy while redeploying its resources more effectively to enforce compliance with established testing requirements and emissions standards.

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International Business Machines Corporation ("IBM") respectfully submits these comments concerning the Commission's proposed changes to Part 2 in the above-referenced proceeding.[1/]

Introduction

IBM supports the rule changes proposed by the Commission in its laudable effort to "decreas[e] the time for a product to reach the marketplace."[2/] However, IBM believes that achievement of this important goal in the case of class B personal computers ("PCs") and associated peripherals requires a more fundamental revision to the Commission's rules: the substitution of a verification procedure for the certification

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1/ Revision of Part 2 of the Commission's Rules Relating to the Marketing and Authorization of Radio Frequency Devices, Notice of Proposed Rulemaking, 9 FCC Rcd 2702 (1994) (*hereinafter* "NPRM").

2/ Id.

process now required for PC products. IBM is not recommending changes to the actual testing requirements or compliance standards for PC products. But it believes that streamlining the Commission's approval procedures would satisfy the current needs of the evolving PC marketplace while more efficiently allocating Commission enforcement resources to reducing the risks of interference from noncomplying products.

The current PC marketplace -- a vital sector of our national economy -- is inundated with technological innovations and new uses for PC products. This trend shows no signs of abating. Simultaneously, consumers demand immediately the advantages of new PC applications. Consequently, product life cycles for PC systems and peripherals are compressing, and manufacturers are accelerating their development activities to stay apace of consumer expectations. A critical portion of a PC product development cycle is the time that lapses while the manufacturer awaits FCC certification that it may market its product. By replacing the administrative burden of a certification process for PC products with a verification procedure, the FCC could both satisfy the current demands for shorter time-to-market and more effectively deploy its resources to detect noncomplying sources of potential interference.

I. IBM SUPPORTS THE COMMISSION'S RULE CHANGES, WITH ONE INCREMENTAL MODIFICATION TO PERMIT PRE-AUTHORIZATION SALES OF PROTOTYPES SOLELY FOR THE PURPOSE OF BETA TESTING AND COMPLEMENTARY PRODUCT DEVELOPMENT.

In the NPRM, the Commission has proposed several rule changes designed to enhance regulatory parity between class A and class B digital devices and thereby reduce confusion in the industry. The Commission has proposed, inter alia, to allow all types of radio RF devices to be offered for sale to non-residential users prior to equipment authorization or compliance determination, and to extend the exceptions of Sections 2.806 and 2.809 to class B devices.[3/]

IBM supports the laudable changes proposed by the Commission. IBM would also propose one incremental change to the Commission's rules that would facilitate product development. Proposed rule 2.803(e) contemplates the pre-authorization or pre-verification operation, but not sale, of prototype RF devices for so-called "beta testing," i.e., evaluation of product performance and determination of customer acceptability. In today's computer industry, computer hardware is inextricably intertwined with the practically simultaneous development of complementary software and other digital devices supporting the system. Thus, prior to

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[3/] See NPRM, 9 FCC Rcd at 2707, Appendix B, 47 C.F.R. § 2.803. The Commission has also proposed to make those who modify RF devices responsible for ensuring compliance of the devices as modified. See id. Based on its experience, IBM strongly endorses this change in the rules to assign responsibility to the appropriate party.

introducing and announcing a new product, manufacturers may choose to provide prototypes to product developers to assist in product development or to perform evaluation. Under the Commission's proposals, however, manufacturers must provide their prototypes to these developers for free. In connection with the development of any one product, prototype devices with individual market values of several thousand dollars might be delivered to numerous developers. The current proposals would prevent manufacturers from recovering directly the costs of these prototypes, and also provide an unwarranted subsidy of the product development efforts of these other entities.

For these reasons, IBM urges the Commission to permit the actual sale of prototype digital devices to a limited class of users, solely for the purpose of engaging in beta testing or complementary software and hardware development. The Commission has already recognized that such limited distribution of prototypes to nonresidential users would not implicate any of the Commission's concerns regarding mass consumer marketing.[4/] By allowing manufacturers to sell prototype digital devices to this limited class of nonresidential users prior to equipment authorization or compliance determination, and thereby recover

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4/ See NPRM, 9 FCC Rcd at 2704 (Commission reluctant to expand exemptions in Sections 2.806 and 2.809 because equipment would be difficult to recall if a large quantity of the equipment were shipped to the general public); Revision of Part 15 of the Rules, 6 FCC Rcd 1683, 1685 (1991)(sale of potentially noncomplying devices to general public poses a risk of interference).

their costs of development more quickly, the Commission would encourage greater product development efforts and relieve manufacturers of an unnecessary financial burden.[5/]

II. THE COMMISSION'S CURRENT AND PROPOSED RULES CONTINUE TO IMPOSE AN UNNECESSARILY BURDENSOME CERTIFICATION PROCESS ON MANUFACTURERS OF PERSONAL COMPUTERS AND ASSOCIATED PERIPHERAL DEVICES.

As noted above, the personal computer industry has become one of the most visible and vital sectors of the U.S. economy. In 1992, worldwide sales of personal computers amounted to $46.5 billion.[6/] The role of this industry in the multimedia environment of the National Information Infrastructure ensures that the personal computer industry will assume increasing importance in the years to come. The Commission's intent in the NPRM was to "stimulate economic growth" in this industry, and "decreas[e] the time for a product to reach the marketplace."[7/]

[5/] The Commission's current rules exempt industrial, commercial, and medical test equipment from the Part 15 technical standards and requirements. 47 C.F.R. § 15.103(c). There is no reason that prototype digital devices should not be treated similarly. The entities to which manufacturers would sell such prototypes do not market the equipment to the public, but use it in a confined commercial environment as part of their own development or beta testing process.

[6/] See Louise Kehoe, *Computer Survey Confirms Shift From Mainframes*, FINANCIAL TIMES, Jan. 6, 1993, at 18.

[7/] NPRM, 9 FCC Rcd at 2702. As Chairman Hundt has noted, one of the principal objectives of telecommunications regulation should be to "promote economic growth for the American economy." Statement of Chairman Reed E. Hundt Before the Senate Commerce Committee on the Nomination of Reed E. Hundt to be Chairman of the Federal Communications Commission at 2 (Sept. 22,

In order to achieve these goals and promote the introduction of new and improved personal computer products, IBM believes that a more fundamental change in the Commission's approval procedures is necessary.

IBM shares the Commission's concern regarding the potential for RF interference that might result from widespread consumer distribution of digital devices prior to a determination that they comply with the relevant Commission standards. However, the underlying premise of the NPRM is that the existing certification review process is the only way to protect against this risk. Under this process, most personal computers and associated peripherals are designated as class B digital devices. Thus, even after they are tested and found by the manufacturer to be in compliance with the Commission's class B standards, PC products may not be sold to the public until a report and application are filed with the Commission and the staff issues a grant of certification.[8/] This process currently takes four to

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1993); Statement of Chairman Reed E. Hundt Before the House Subcommittee on Telecommunications and Finance of the Committee on Energy and Commerce on H.R. 3636 and H.R. 3626 at 2-3 (Jan. 27, 1994); see also Diane Duston, Telecommunications Policy Will Focus on Jobs Creation, Associated Press (Dec. 6, 1993)(Chairman Hundt recognizing that telecommunications policy is the "beating heart of American growth").

8/ See 47 C.F.R. §§ 15.3(i), 15.101(a), 2.803, 2.1031, 2.1045, 2.907, 2.909, 2.1033.

five weeks.[9] IBM believes that the delays resulting from this procedure are no longer warranted, and that equally effective methods of ensuring compliance are available, which can both decrease the risks of harmful interference and avoid the delays occasioned by the certification review process.

A. Drastically Changed Circumstances Since 1970 in the Computer Industry Require Changes in the Commission's Approval Procedures.

In paragraph 9, the Commission posits that its proposed rule changes are necessary to adhere to the marketing rules it adopted in 1970.[10] IBM maintains that the certification process adopted in 1970, which may have been necessary as part of the Commission's initial attempt to regulate RF emissions, has become an anachronism in today's personal computer marketplace.

In 1970, personal computers did not even exist. When IBM introduced the first personal computers in 1981, life-cycles for most computer products were measured in years. Today, PC systems have product life-cycles that are measured not in

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[9] The FCC equipment authorization laboratory reports that it currently processes 50% of certification applications in 29 days and 90% of those applications in 35 days. See FCC Public Notice 44224 (Aug. 8, 1994).

[10] NPRM, 9 FCC Rcd at 2703-04.

years, but in months.[11] And all indications are that the pace of change in this industry will continue to increase. In order to compete effectively in this market, and driven by technological breakthroughs and consumer demands, manufacturers of personal computers have dramatically reduced their product development time ("time-to-market"). For instance, new IBM notebook computer models go from drawing board to market in nine months; enhanced versions in about six months. Reducing time-to-market is becoming a vital competitive tool in the personal computer business.[12] As one industry observer has noted, "[A] three-month delay in bringing a product to market can mean that it is obsolete on arrival."[13] A delay of four to five weeks for personal computer products thus now significantly increases time-to-market. For adapter cards and other peripherals, which

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[11] Industry analysts have also noted the trend toward shorter product life-cycles. See *That Sinking Feeling*, THE ECONOMIST, July 24, 1993, at 63 ("Two years ago, PCs spent a year in the catalogue before being replaced; now they last six months."); Jim Seymour, *Three Tenets for Re-engineering the PC Business*, PC WEEK, Jan. 18, 1993, at 61 (industry moving toward six-month product life-cycles).

[12] See also Myron I. Peskin & Warren Adis, *Concurrency: The New Method for Quickly Bringing New Products to Market*, 15 ST. JOHN'S UNIV. REV. OF BUSINESS, 22 (June 22, 1993)(time-to-market a key "competitive differentiator").

[13] Joseph T. Gilbert, *"Faster! Newer!" Is Not a Strategy*, 58 SAM ADVANCED MANAGEMENT JOURNAL 4 (Sept. 22, 1993); see also K. Clark & S. Wheelwright, *Competing Through Development Capability in a Manufacturing-Based Organization*, BUSINESS HORIZONS, July-Aug. 1992, at 29-43 (suggesting that a six-month delay in release, in a market in which products have 18-24 month life-cycles, may decrease profits by as much as 66% over the life of the product).

typically have even shorter life-cycles, this delay is particularly burdensome.

B. The Commission's Limited Resources Should Be Redeployed from Processing Certification Applications for Personal Computers To Increasing Enforcement of the Underlying Technical Requirements for Such Devices.

At the same time that the PC industry has decreased its time-to-market and increased its supply of new products, the class B certification requirements for these products have led to an increasing number of certification applications. In 1993, the Commission granted approximately 4100 applications for personal computers and associated peripherals alone. The majority of those applications were for personal computer peripherals, which as noted above typically have even shorter product life-cycles than do personal computer systems, and which are therefore even more sensitive to introduction delays.

This deluge of applications places a substantial burden on Commission resources that IBM believes is no longer warranted, given that the requirements for class B testing procedures are now well established. IBM recommends that the Commission substitute a verification procedure for the certification process now applicable to personal computers and

associated peripherals.[14] Such a procedure would allow the Commission to redeploy valuable Commission personnel to focus directly on those who may be bringing their personal computer products to market without bothering to comply with the present testing or filing requirements. Redeploying Commission personnel toward more effective enforcement procedures would be fully consistent with the Commission's goal to serve as "a model for reinventing government."[15] Verification procedures would also eliminate the critical delays experienced by the growing numbers of PC users in the time-to-market for personal computers and associated peripherals.

Adopting verification procedures would also bring U.S. regulatory requirements into line with international procedures. As the Commission has previously recognized, uniform regulation of digital devices across international boundaries enhances the "ability of the United States manufacturers to compete fairly and effectively in international markets."[16] In 1989, the EC adopted a harmonizing EMC Directive requiring member

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[14] Other similar procedures could also be examined, such as the declaration process for class B personal computers and associated peripherals that CBEMA has recently suggested. See Letter from William F. Hanrahan, Senior Director, CBEMA, to Dr. Thomas Stanley, Chief Engineer, OET (June 24, 1994).

[15] Jeannine Aversa, *FCC Forms Independent Cable Bureau*, MULTICHANNEL NEWS at 33 (Dec. 20, 1993)(quoting Chairman Hundt).

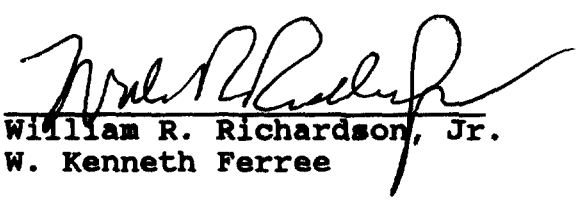
[16] Revision of Part 15 of the Rules to Harmonize the Standards for Digital Devices with International Standards, 8 FCC Rcd 6772 (1993).

states to implement a manufacturer's declaration of conformity procedure with respect to these (and other) devices, which is similar to verification.[17] As noted in CBEMA's June 1994 letter to the Chief Engineer, elimination of the certification requirement for personal computers and associated peripherals would thus bring U.S. requirements into harmony with international standards applicable to such products.

CONCLUSION

For the reasons stated above, IBM urges that the Commission's proposal to amend its rules pertaining to the regulation of digital devices be adopted with the modification and addition suggested above.

Respectfully submitted,



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[17] See Council Directive 89/336/EEC (OJ L 139, 23 May 1989, p. 19) (Article 10(1)). See 91/263/EEC (OJ L 128, 23 May 1991, p. 1) (terminal type approval directive analogous to part 68 requirements).

CERTIFICATE OF SERVICE

I, William R. Richardson, Jr., hereby certify that I have this 6th day of September, 1994, caused to be delivered by hand (except as noted) copies of the foregoing "Comments of International Business Machines Corporation," to the persons named on the attached service list.

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